

USSN 10/630,217

APPENDIX OF THE CLAIMS

1. – 11. (Cancel)

12. (previously presented) A granule comprising a protein core and a hydrated barrier material selected from inorganic salts, organic acid salts, sugars, polysaccharides, lipids, polymers, the hydrated barrier material coated over the protein core, the granule having moderate or high water activity.

13. (previously presented) The granule of claim 12 wherein the moderate or high water activity is greater than 0.25.

14. (previously presented) The granule of claim 12 wherein the moderate or high water activity is greater than 0.30.

15. (previously presented) The granule of claim 12 wherein the moderate or high water activity is greater than 0.35.

16. (previously presented) The granule of claim 12 wherein the hydrated barrier material is an inorganic salt.

17. (previously presented) The granule of claim 16 wherein the inorganic salt is selected from magnesium sulfate heptahydrate, zinc sulfate heptahydrate, sodium phosphate dibasic heptahydrate, magnesium nitrate hexahydrate, sodium citrate dehydrate or magnesium acetate tetrahydrate.

18. (previously presented) The granule of claim 16 wherein the protein is an enzyme.

19. (previously presented) The granule of claim 18 wherein the enzyme is selected from hydrolases, oxidases, transferases, dehydratases, reductases, hemicellulases, isomerases and mixtures thereof.

USSN 10/630,217

20. (previously presented) The granule of claim 18 wherein the enzyme is a subtilisin.
21. (previously presented) The granule of claim 16 further comprising one or more additional coating layers.
22. (previously presented) The granule of claim 21 wherein the one or more additional coating layers comprises an outer coating over the hydrated barrier coat, the outer coating selected from vinyl polymers, cellulose derivatives, polyethylene glycol, polyethylene oxide, chitosan, gum Arabic, xanthan, carrageenan, latex polymers and enteric coatings.
- 23 (previously presented) The granule of claim 21 wherein the one or more additional coating layers comprises a coating that resists oxidation of the protein by bleach.
- 24 (previously presented) The granule of claim 21 wherein the one or more additional coating layers comprise one or more of plasticizers, extenders, lubricants, pigments, enzymes.
25. (previously presented) A granule comprising;
an enzyme core;
a hydrated inorganic barrier salt coated onto the enzyme core, the enzyme core coated with the hydrated inorganic barrier salt having moderate or high water activity greater than 0.25; and
an outer coating over the hydrated inorganic barrier salt.
26. (previously presented) The granule of claim 25 wherein the enzyme core comprises enzyme selected from hydrolases, oxidases, transferases, dehydratases, reductases, hemicellulases, isomerases and mixtures thereof.
27. (previously presented) The granule of claim 26 wherein the inorganic barrier salt is selected from magnesium sulfate heptahydrate, zinc sulfate heptahydrate,

USSN 10/630,217

sodium phosphate dibasic heptahydrate, magnesium nitrate hexahydrate, sodium citrate dehydrate or magnesium acetate tetrahydrate.

28. (previously presented) The granule of claim 27 wherein the enzyme core comprises a seed particle coated with an enzyme layer.
29. (Currently amended) A method of producing the granule of claim 25 comprising:
providing the enzyme core; and
coating the hydrated inorganic barrier salt onto the enzyme core at 55°, 50° C or slightly below 50° C, ~~or at an outlet temperature of 40° to 50° C~~; wherein the granule has moderate or high water activity greater than 0.25 and
adding an outer coating over the hydrated inorganic barrier salt, the granule exhibiting greater percent retained enzyme activity compared to an identical similar test granule coated with the hydrated barrier material at 70° C, the retained enzyme activity measured after storage of the granule and the test identical granule coated with the hydrated barrier material at 70° C in detergent for at least 14 days.
30. (previously presented) A method of producing the granule of claim 12 comprising:
providing the protein core; and
coating the hydrated barrier material onto the protein core at 55°, 50° C or slightly below 50° C, ~~or at an outlet temperature of 40° to 50° C~~.
31. (Currently amended) The method of claim 30 further comprising adding an outer coating over the hydrated barrier material, the granule exhibiting greater percent retained protein activity compared to a an identical test granule coated with the hydrated barrier material at 70° C, the retained protein activity measured after storage of the granule and the test granule in detergent for at least 14 days.